1. (Three Times Amended) A retroviral vector comprising a 3' and 5' long terminal repeat (LTR), the retroviral vector further comprising:

(a) a functional splice donor site;

(b) a functional splice acceptor site;

(c) a first nucleotide sequence of interest ("NOI") flanked upstream by the functional splice donor site and downstream by the functional splice acceptor site; and

(d) a second NOI downstream of the functional splice acceptor site;

wherein the functional splice donor site is within the 5' LTR of the retroviral vector.

5. The retroviral vector according to claim 1 wherein the second NOI, or the expression product thereof, is capable of providing a therapeutic agent or a diagnostic agent.

6. The retroviral vector according to claim 1 wherein the first NOI, or the expression product thereof, comprises a selectable marker, a viral element, or a combination thereof.

9. The retroviral vector according to claim 1 wherein the functional splice donor site is from a virus.

10. The retroviral vector according to claim 1 wherein the functional splice donor site is from an intron.

11. The retroviral vector according to claim 10 wherein the intron is the small t-intron of SV40 virus.

14. The retroviral vector according to claim 1 wherein the functional splice acceptor site is upstream of a multiple cloning site such that one or more additional NOIs may be inserted.

15. The retroviral vector according to claim 1 wherein the functional splice acceptor site is from a nucleotide sequence coding for an immunological molecule.

16. The retroviral vector according to claim 15 wherein the immunological molecule is an immunoglobulin.

17. The retroviral vector according to claim 16 wherein the immunoglobulin is from an immunoglobulin heavy chain variable region.

21. The retroviral vector according to claim 1 wherein the vector is a murine oncoretrovirus vector or a lentivirus retroviral vector.

22. The retroviral vector according to claim 21 wherein the vector is a MMLV, MSV, MMTV, HIV, or EIAV retroviral vector.

24. The retroviral particle obtained from a retroviral vector according to claim 1 wherein the retroviral particle comprises a retroviral vector comprising a functional splice donor site within its 5' long terminal repeat (LTR).

Please add the following new claims.

46. The retroviral vector according to claim 1, the retroviral vector further comprising:

(a) a first nucleotide sequence (NS) comprising the functional splice donor site, and

(b) a second NS comprising the functional splice acceptor site, wherein the second NS further encodes for an immunological molecule or a part thereof.

47. A method of producing a retroviral vector comprising a functional splice donor site within its 5' long terminal repeat (LTR), the method comprising:

(a) providing a retroviral pro-vector comprising a 3' and 5' LTR, the retroviral pro-vector comprising:

(i) a functional splice donor site located within the 3' LTR;

(ii) a functional splice acceptor site upstream of the splice donor site;

(iii) a first nucleotide sequence of interest (NOI) upstream of the functional splice acceptor site, and

(iv) a second NOI downstream of the functional splice acceptor site;

(b) packaging tile retroviral pro-vector in a host primary cell, and

(c) infecting a target host secondary cell with the packaged pro-vector thereby causing reverse transcription of the retroviral pro-vector and production of the retroviral vector comprising a functional splice donor site within its 5' LTR.

48. The method according to claim 47 wherein the retroviral pro-vector comprises a splice donor site upstream of the functional splice acceptor site.

49. The method according to claim 47 wherein the first NOI is expressed in the host primary cell.

50. The method according to claim 49 wherein the first NOI is a selectable marker, a viral element, or a combination thereof.

51. The method according to claim 50 wherein the viral element is a retroviral packaging signal, a retroviral envelope sequence, or a combination thereof.

52. The method according to claim 51 wherein the retroviral packaging signal is upstream of the functional splice acceptor site thereby preventing splicing of the first NOI in the host primary cell upon transfection thereof.

53. The method according to claim 47 wherein the retroviral pro-vector is a murine oncoretrovirus pro-vector or a lentivirus retroviral pro-vector.

54. The method according to claim 53 wherein the retroviral pro-vector is a MMLV, MSV, MMTV, HIV, or EIAV retroviral pro-vector.

55. The method according to claim 47 wherein the retroviral pro-vector further comprises a transcriptional control sequence upstream of the functional splice donor site.

56. The method according to claim 47 wherein the first NOI is expressed in a primary cell.

57. A retroviral vector comprising a 3' and 5' long terminal repeat (LTR), the retroviral vector further comprising:

(a) a functional splice donor site;

(b) a functional splice acceptor site;

(c) an NOI downstream of the functional splice acceptor site;

wherein the functional splice donor site is within the 5' LTR of the retroviral vector.

58. A retroviral particle obtained from the retroviral vector according to claim 57 wherein the retroviral particle comprises a retroviral vector comprising a functional splice donor site within its 5' long terminal repeat (LTR).

59. A retroviral vector comprising a functional splice donor site within its 5' LTR, wherein the retroviral vector is produced by the method of claim 47.